AMENDMENTS TO THE CLAIMS

The following is a complete revised listing of the claims with a status identifier in parenthesis.

LISTING OF CLAIMS

1. (Currently Amended) A computer readable medium having a data structure for managing reproduction of video data having at least one reproduction path ~~recorded on the computer readable medium~~, comprising:

a data area for storing stream files, each stream file including video data, each stream file associated with one of a portion common to the reproduction paths and a particular reproduction path among the reproduction paths of the video data;

a playlist area storing a playlist file, the playlist file for identifying the common reproduction path portion and the particular reproduction path to reproduce, the playlist file including at least one playitem, each playitem indicating a playing interval from in-point until out-point, the in-point and out-point pointing to time positions on a time axis of the video data; and

a clip information area for storing management information for managing reproduction of the video data, the management information including clip information files, each one of the clip information files being associated with a corresponding stream file, each clip information file including a map for the associated stream file, the map mapping a presentation time stamp to ~~a source packet~~ an address for ~~an~~ at least one entry point ~~of~~ in the associated stream file, wherein the clip information file, the playlist file and the stream file ~~is being~~ logically separate and include [[ing]] different file extensions.

2. (Previously Presented) The computer readable medium of claim 1, wherein the stream files are interleaved.

3. (Previously Presented) The computer readable medium of claim 2, wherein the stream files associated with the particular reproduction path are interleaved between the stream files associated with the common reproduction path portion.

4. (Previously Presented) The computer readable medium of claim 2, wherein the stream files have a size to prevent a reproducing apparatus buffer from under-flowing during reproduction of the stream files.

5. (Previously Presented) The computer readable medium of claim 4, wherein the stream files have a size to prevent the reproducing apparatus buffer from over-flowing during reproduction of the stream files.

6. (Previously Presented) The computer readable medium of claim 5, wherein more than one stream file is associated with a same one of a common reproduction path portion and a particular reproduction path when the one of the common reproduction path portion and the particular reproduction path includes data exceeding a stream file size to prevent the reproducing apparatus buffer from over-flowing during reproduction of the stream files.

7. (Previously Presented) The computer readable medium of claim 2, wherein the stream files have a size to prevent the reproducing apparatus buffer from over-flowing during reproduction of the stream files.

8. (Previously Presented) The computer readable medium of claim 7, wherein more than one stream file is associated with a same one of a common reproduction path portion and a particular reproduction path when the one of the common reproduction path portion and the particular reproduction path includes data exceeding a stream file size to prevent the reproducing apparatus buffer from over-flowing during reproduction of the stream files.

9. (Previously Presented) The computer readable medium of claim 1, wherein the stream files have a size to prevent a reproducing apparatus buffer from under-flowing during reproduction of the stream files.

10. (Previously Presented) The computer readable medium of claim 1, wherein the stream files have a size to prevent the reproducing apparatus buffer from over-flowing during reproduction of the stream files.

11. (Previously Presented) The computer readable medium of claim 10, wherein more than one stream file is associated with a same one of a common reproduction path portion and a particular reproduction path when the one of the common reproduction path portion and the particular reproduction path includes data exceeding a stream

file size to prevent the reproducing apparatus buffer from over-flowing during reproduction of the stream files.

12. (Currently Amended) A method of recording a data structure for managing reproduction of video data having at least one reproduction path on a recording medium, comprising:

recording stream files of a data area of the recording medium, each stream file including video data, each stream file associated with one of a portion common to the reproduction paths and a particular reproduction path among the reproduction paths;

recording a playlist file in a playlist area of the recording medium, the playlist file for identifying the common reproduction path portion and the particular reproduction path to reproduce, the playlist file including at least one playitem, each playitem indicating a playing interval from in-point until out-point, the in-point and out-point pointing to time positions on a time axis of the video data; and

recording management information for managing of the video data in clip information files, the clip information files recorded in a clip information area of the recording medium, each one of the clip information files being associated with a corresponding stream file, each clip information file including a map for the associated stream file, the map mapping a presentation time stamp to ~~a source packet~~ an address for ~~an~~ at least one entry point ~~of~~ in the associated stream file, wherein the clip information file, the playlist file and the stream file ~~is being~~ logically separate and include [[ing]] different file extensions.

13. (Currently Amended) A method of reproducing a data structure for managing reproduction of video data having at least one reproduction path recorded on a recording medium, comprising:

reproducing stream files from a data area of the recording medium, each stream file including video data, each stream file associated with one of a portion common to the reproduction paths and a particular reproduction path among the reproduction paths; and

reproducing a playlist file recorded in a playlist area of the recording medium, the playlist file for identifying the common reproduction path portion and the particular reproduction path to reproduce, the playlist file including at least one playitem, each playitem indicating a playing interval from in-point until out-point, the in-point and out-point pointing to time positions on a time axis of the video data;

reproducing management information for managing reproduction of the video data from clip information files, the clip information files being recorded in a clip information area of the recording medium, each one of the clip information files associated with a corresponding stream file, each clip information file including a map for the associated stream file, the map mapping a presentation time stamp to ~~a source packet~~ an address for ~~an~~ at least one entry point ~~of~~ in the associated stream file, wherein the clip information file, the playlist file and the stream file ~~is being~~ logically separate and include [[ing]] different file extensions.

14. (Currently Amended) An apparatus for recording a data structure for managing reproduction of video data having at least one reproduction path on a recording medium, comprising:

an optical recording unit configured to record data on the recording medium;

an encoder configured to encode at least video data having at least one reproduction path; and

a controller, coupled to the optical recording unit, configured to control the optical recording unit to record stream files output from the encoder in a data area of the recording medium, each stream file including video data, each stream file associated with one of a portion common to the reproduction paths and a particular reproduction path among the reproduction paths;

the controller configured to the optical recording unit to record a playlist file in a playlist area of the recording medium, the playlist file for identifying the common reproduction path portion and the particular reproduction path to reproduce, the playlist file including at least one playitem, each playitem indicating a playing interval from in-point until out-point, the in-point and out-point pointing to time positions on a time axis of the video data; and

the controller configured to control the optical recording unit to record management information for managing reproduction of the video data in clip information files, the clip information files being recorded in a clip information area of the recording medium, each one of the clip information files being associated with a corresponding stream file, each clip information file including a map for the associated stream file, the map mapping a presentation time stamp to ~~a source packet~~ an address for ~~an~~ at least one entry point ~~of~~ in the associated stream file, wherein the clip information file, the playlist file and the stream file ~~is being~~ logically separate and include [[ing]] different file extensions.

15. (Currently Amended) An apparatus for reproducing a data structure for managing reproduction of video data having at least one reproduction path recorded on a recording medium, comprising:

an optical reproducing unit configured to reproduce data recorded on the recording medium;

a controller, coupled to the optical reproducing unit, configured to control the optical reproducing unit to reproduce stream files from the recording medium, each stream file including video data, each stream file associated with one of a portion common to the reproduction paths and a particular reproduction path among the reproduction paths;

the controller configured to the optical recording unit to reproduce a playlist file from a playlist area of the recording medium, the playlist file for identifying the common reproduction path portion and the particular reproduction path to reproduce, the playlist file including at least one playitem, each playitem indicating a playing interval from in-point until out-point, the in-point and out-point pointing to time positions on a time axis of the video data; and

the controller configured to control the optical reproducing unit to reproduce management information for managing reproduction of the video data from clip information files, the clip information files recorded in a clip information area of the recording medium, each one of the clip information files being associated with a corresponding stream file, each clip information file including a map for the associated stream file, the map mapping a presentation time stamp to ~~a source packet~~ an address for ~~an~~ at least one entry point ~~of~~ in the associated stream file, wherein the clip

information file, the playlist file and the stream file is ~~being~~ logically separate and include [[ing]] different file extensions.

16. (Previously Presented) The computer readable medium of claim 3, wherein only one stream file is associated with each particular portion representing a same time period of the video data.

17. (Previously Presented) The computer readable medium of claim 16, wherein

the video data is represented by packets; and

each map maps presentation time stamps to packet addresses.

18. (Previously Presented) The computer readable medium of claim 1, wherein

the video data is represented by packets; and

each map maps presentation time stamps to packet addresses.

19. (Previously Presented) The method of claim 12, wherein the stream files associated with the particular reproduction path are interleaved between the stream files associated with the common reproduction path portion.

20. (Previously Presented) The method of claim 12, wherein the stream files have a size to prevent the reproducing apparatus buffer from over-flowing during reproduction of the stream files.

21. (Previously Presented) The method of claim 12, wherein the stream files have a size to prevent a reproducing apparatus buffer from under-flowing during reproduction of the stream files.

22. (Previously Presented) The method of claim 13, wherein the stream files associated with the particular reproduction path portion are interleaved between the stream files associated with the common reproduction path portion.

23. (Previously Presented) The method of claim 13, wherein the stream files have a size to prevent the reproducing apparatus buffer from over-flowing during reproduction of the stream files.

24. (Previously Presented) The method of claim 13, wherein the stream files have a size to prevent a reproducing apparatus buffer from under-flowing during reproduction of the stream files.

25. (Previously Presented) The apparatus of claim 14, wherein the stream files associated with the particular reproduction path are interleaved between the stream files associated with the common reproduction path portion.

26. (Previously Presented) The apparatus of claim 14, wherein the stream files have a size to prevent the reproducing apparatus buffer from over-flowing during reproduction of the stream files.

27. (Previously Presented) The apparatus of claim 14, wherein the stream files have a size to prevent a reproducing apparatus buffer from under-flowing during reproduction of the stream files.

28. (Previously Presented) The apparatus of claim 15, wherein the stream files associated with the particular reproduction path are interleaved between the stream files associated with the common reproduction path portion.

29. (Previously Presented) The apparatus of claim 15, wherein the stream files have a size to prevent the reproducing apparatus buffer from over-flowing during reproduction of the stream files.

30. (Previously Presented) The apparatus of claim 15, wherein the stream files have a size to prevent a reproducing apparatus buffer from under-flowing during reproduction of the stream files.

31. (Cancelled)

32. (Previously Presented) The computer readable medium of claim 1, wherein the playlist file includes at least one indicator for indicating a reproduction order of the common and particular reproduction path.